



PROFILE OF PEDIATRIC PATIENTS AND CARE SERVICES IN AN EMERGENCY UNIT

PERFIL DOS PACIENTES E ATENDIMENTOS PEDIÁTRICOS NUMA UNIDADE DE PRONTO ATENDIMENTO

PERFIL DE PACIENTES Y ATENCIÓN PEDIÁTRICA EN UNIDADES DE ATENCIÓN PRIMARIA

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ABSTRACT

Objective: to trace the profile of children and care services provided in an Emergency unit. **Method:** this was a quantitative, epidemiological, and descriptive research with a cross-sectional-retrospective design. The sample was composed of 526 patients in the municipality of Porto Alegre/RS/Brazil. The data were collected from patient's records dated from January to December of 2011. The data analysis used descriptive statistics. This study was approved by the Research Ethics Committee under protocol no. CAAE 001.042.625.122. **Results:** the male gender predominated with 51.9% (n = 273) and females accounted for 46.2% (n = 243) of all studied patients; the white race accounted for 80.7% (n = 424) followed by the brown with 12.7% (n = 67), and black with 2.8% (n = 15); the predominant age range was between 1 and 5 years old, which accounted for 52.2% (n = 256) of the studied patients. **Conclusion:** the majority of the pediatric assistance represented clinical situations that could be resolved in the Primary Care. **Keywords:** Child; Reception; Health Profile; Pediatrics; Nursing.

RESUMO

Objetivo: traçar o perfil das crianças e dos atendimentos realizados numa Unidade de Pronto Atendimento. **Método:** pesquisa quantitativa, epidemiológica e descritiva, com delineamento transversal-retrospectivo. A amostra foi composta por 526 pacientes do município de Porto Alegre/RS/Brasil. A coleta dos dados ocorreu em boletins de atendimentos do período de janeiro a dezembro de 2011. Para a análise dos dados utilizou-se estatística descritiva. Este estudo foi aprovado pelo Comitê de Ética em Pesquisa, CAAE 001.042.625.122. **Resultados:** em relação ao gênero, predominou o masculino, com 51,9% (n=273) e o feminino, com 46,2% (n=243); a raça branca correspondeu a 80,7% (n=424), seguida das raças parda, com 12,7% (n=67) e negra, com 2,8% (n=15); em relação à idade, predominou a faixa etária de 1 a 5 anos, os quais corresponderam 52,2% (n=256). **Conclusão:** a maioria dos atendimentos pediátricos apresentou situações clínicas que poderiam ser resolvidas na Atenção Primária. **Descritores:** Criança; Acolhimento; Perfil de Saúde; Pediatria; Enfermagem.

RESUMEN

Objetivo: definir el perfil de los niños y del servicio de atención realizados en una Unidad de Atención Primaria de la ciudad de Porto Alegre/RS, Brasil. **Metodología:** investigación de enfoque cuantitativo, epidemiológico y descriptivo, de tipo transversal-retrospectivo. La muestra está compuesta por 526 pacientes. La recopilación de datos fue hecha a través de boletines de atención de salud en el período de enero a diciembre de 2011. Para el análisis de los datos fue utilizada la estadística descriptiva. Este estudio fue aprobado por el CEP de la Secretaría Municipal de Salud de Porto Alegre, bajo el CAAE - Nº: 001.042.625.122. **Resultados:** respecto al género, predominó el masculino, con un 51.9% (n=273), y el femenino representó un 46,2% (n=243); la raza blanca, un 80,7% (n=424), seguida de los de piel parda, con un 12,7% (n=67) y negra, con un 2,8% (n=15); respecto a la edad, predominó la franja etaria de 1 a 5 años, representando un 52,2% (n=256). **Conclusión:** la mayoría de las atenciones pediátricas presentó situaciones clínicas que podrían ser resueltas en la Atención Primaria. **Descritores:** Niño; Recepción; Perfil de salud; Pediatría; Enfermería.

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INTRODUCTION

The demand for emergency assistance to child health has always been growing and is mainly related to accidents and seasonal diseases. It is observed that families still present difficulties in caring for children at home; similar situations are observed in schools and daycares as the result of limited health promotion actions.

The daily overcrowding of hospital emergency services and Immediate Assistance Emergency Services is observed, however, the demand does not always correspond to the number of users with an immediate need for intervention and care. These data indicates that the population still does not trust the basic attention and overvalues hospital attention. Thus, the health team needs to know the profiles of assisted patients to discuss and plan measures that could mitigate the chaos that we identify in the health sector, mainly in pediatric care.

Therefore, it is important to learn about the contexts that involve the use of pediatric emergency services, considering social, cultural, and organizational factors equally important as the disease itself for service planning.¹

REVIEW OF THE LITERATURE

◆ Organization and contextualization of the system for assistance to urgencies and emergencies

The Unified Health System was created in the Federal Constitution of 1988 and is governed by the law 8080 from September 19, 1990, which rules on organization and functioning of health services in an organized and regionalized manner.²

The Basic Attention, defined and standardized by the Ordinances and Operational Standards of Health Care 01/2002 (NOAS 01/02) latest version, should be the "gateway" of access to the Health System.³

The current health policy has not been able to modify the high demand for urgent services from the population, as a "gateway" to the health care system, evidenced by the high demand for basic care. This aggravation is attributed to demographic changes, emergence of

chronic- degenerative diseases, increased violence, adverse living conditions, and unemployment. The situation is out of control of public leaders resulting in dissatisfaction in users and health workers.⁴

◆ Immediate services for the pediatric patient

The urgent and emergency care aims to restore the user's vital conditions and requires that professionals are properly trained. To the extent that one unit absorbs the clientele from other health units, including clinical cases of various complexities and specialties receiving a demand with health problems that could be solved in the primary care.⁴

The Immediate Assistance Service (SPA) is administratively linked to the Basic Health Unit (BHU) from a Health Center, which was built in the decade of 1970, by the federal sphere, having been conceived as a large Outpatient Clinic for Medical Specialties. In 1996, during the municipalization, a reorganization of the access for pre-scheduling consultations and hierarchization of services occurred resulting in the Basic Attention Health Center (UBS and Immediate Assistance Service) with medium complexity (Specialties Outpatient Clinic). In the PA (Immediate Assistance Service), services related to nursing care, pediatrics and clinics, observation and resuscitation are performed. Nursing procedures for application of injections, nebulization, and capillary blood glucose are carried out upon presentation of a doctor's prescription.⁵

Therefore, the recognition of profiles from the pediatric clientele seeking care in the PA is important to provide professional preparation and adaptation for a better assistance to child health.⁶

The flow of assistance to users starts after the completion of the assistance record. Depending on the demand and severity, the user waits or not in the lobby, to be called by the nursing staff for a second screening, which occurs within the pre-consultation room. This screening is used to hear the story of the patient, define the main complaint, and establish care priorities. Blood pressure, axillary temperature, reasons for the consultation,

main complaint, and signals of gravity are assessed in this screening. The urgent care cases are forwarded directly to the observation or consultation room; the non-urgent cases are returned to the waiting room and wait for the call for the regular consultation.⁷

◆ Urgent and emergency situations in pediatrics

According to Ministry of Health, acute and chronic respiratory diseases are the main causes of overcrowding urgent services and pediatric emergency rooms, when the primary care could provide support and minimize the flow of emergencies performing the work with continuity.⁸

Child abuse is a problem that is also inserted in the context of urgent and emergency care in the PA services. According to the World Health Organization (WHO), violence against children can be classified into four types (physical, sexual, psychological, and negligence). According to the survey conducted by the WHO, more than 950 thousand deaths in children under 18 years occurs every year as a result of violence and accidents; many cases that come to the urgent and emergency services are normally related to events that occurred at home and because they are serious, with risk of death, the family seeks help.⁹

According to the ECA-Statute of the Child and Adolescent, the child has the right to life and health protection, through the establishment of social and public policies that allow for their sound development in conditions that are worthy of existence. The integral care for a child's health is ensured through the SUS (Unified Health System) with guaranteed universal and equitable access and services for the promotion, protection, and recovery of health.⁸

OBJECTIVE

- To trace the profiles of children and care services provided in an Emergency unit.

METHOD

This was a quantitative, epidemiological, and descriptive research

with a cross-sectional-retrospective design. The target population was composed of 526 children served at the Lomba do Pinheiro Immediate Assistance Unit, from January to December of 2011, in Porto Alegre/RS. According to the information in attendance records for the year 2011, it is estimated that 26,013 pediatric care consultations were executed attending the population.

An instrument containing the variables under study was elaborated for data collection. The following variables were analyzed: risk classification, gender, race, age, origin, complaint, consultation type (first consultation or return), medication and exams carried out, hospitalization needed for observation, transfer to services of higher complexity, and patient's reference. The data was analyzed through descriptive statistics.

The results were presented in tables containing the absolute and relative frequencies of the data. Data analysis shows descriptive statistics as the initial approach with the distribution of simple and relative frequencies, central tendency measurements, and variability for continuous variables, with a study of the distribution of data using the Kolmogorov-Smirnov test.¹⁰ The data received statistical treatment through the SPSS 17.0 software (*Statistical Package to Social Sciences for Windows-SPSS Inc., Chicago, IL, USA, 2008*); the decision criteria adopted the significance level (α) of 5%.

The sample size was calculated using the formula for cross-sectional studies with finite population, through the Stata 8.0 program, in which the basis for calculating considered the proportion of children tended in the category of green risk, known as predominant and represented in 68.6% of the services performed. Unclassified services were not considered, which were around 29.4%, in addition to those under classification as red, yellow, and blue, in which the identified service proportions were less expressive and around 2.0%.¹¹

The minimum required sample size of 523 investigated patients was defined assuming a significance level of 5% ($\alpha = 0.05$) and a margin of error of 5%, which

were proportionally distributed according to the monthly seasonal factor for the number of services performed in the research institution (Figure 1). The sample type was characterized as probabilistic with simple random sampling, where the selection of records was done seven days a week, in the morning and evening periods,

in which both, day of the week and period, were drawn weekly to avoid sampling bias. The number of selected records followed the total established for each month of investigation. Figure 1 shows the estimated attendances/month for the purpose of data collection and analysis.

Month of service	% of tended children (seasonality) **	Sample size
January	8.5	44
February	7.4	39
March	8.5	45
April	9.2	48
May	10.4	55
June	9.3	49
July	7.6	40
August	6.7	35
September	7.4	39
October	8.5	44
November	8.1	43
December	8.3	43
Sample size	100.0	523

Figure 1. Sample size. Data previously provided by the Lomba do Pinheiro Immediate Assistance Unit, 2012.

A term of use of secondary data was attached to all service records selected for data collection to respect the ethical aspects of which this study is based. This study complied with the Guidelines and Regulatory Norms for research involving Humans in accordance with Resolution 466/2012 from the National Health Council.¹² This study was approved by the CEP from the Health Municipal Secretary from Porto Alegre, under CAAE-no: 001.042.625.122.

◆ **Profile of children tended at Lomba do Pinheiro immediate assistance unit from January to December of 2011**

In this category the characteristics of pediatric patients focusing on gender, race, and age were analyzed.

● **Gender**

The male gender predominated over the female with percentages of 51.9% (n = 273) and 46.2% (n = 243), respectively. This information was not described in 10 of the records (1.9%). The prevalence of the male gender was maintained in the monthly data from the studied year.

RESULTS

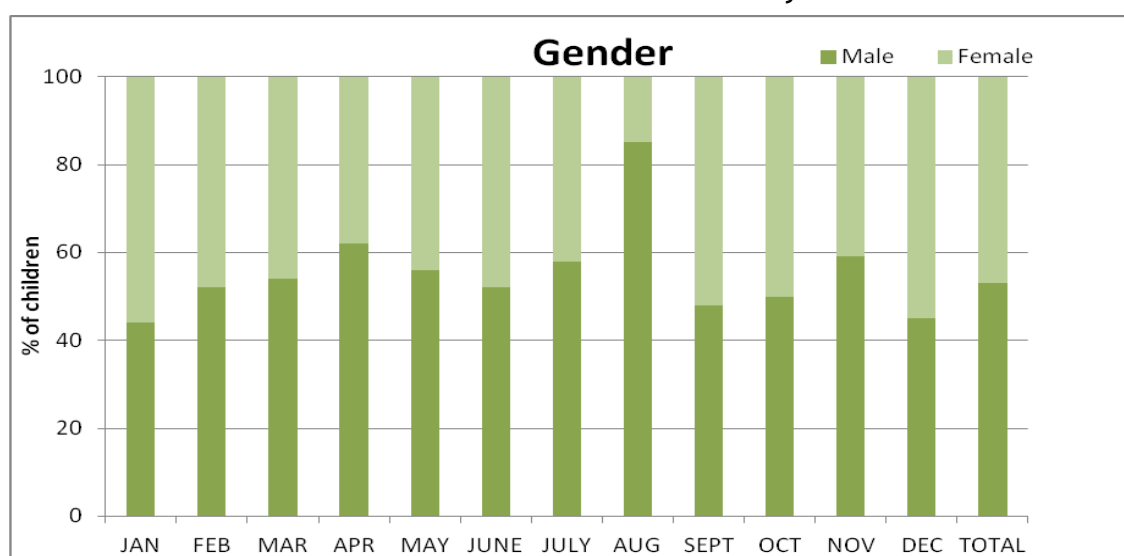


Figure 2. Relative monthly distribution by gender

● **Race**

Most of the sample was characterized as being Caucasian (whites), which corresponded to 80.7% (n = 424), followed

by browns with 12.7% (n = 67), and blacks with 2.8% (n = 15). This feature was maintained in the monthly data from the studied year.

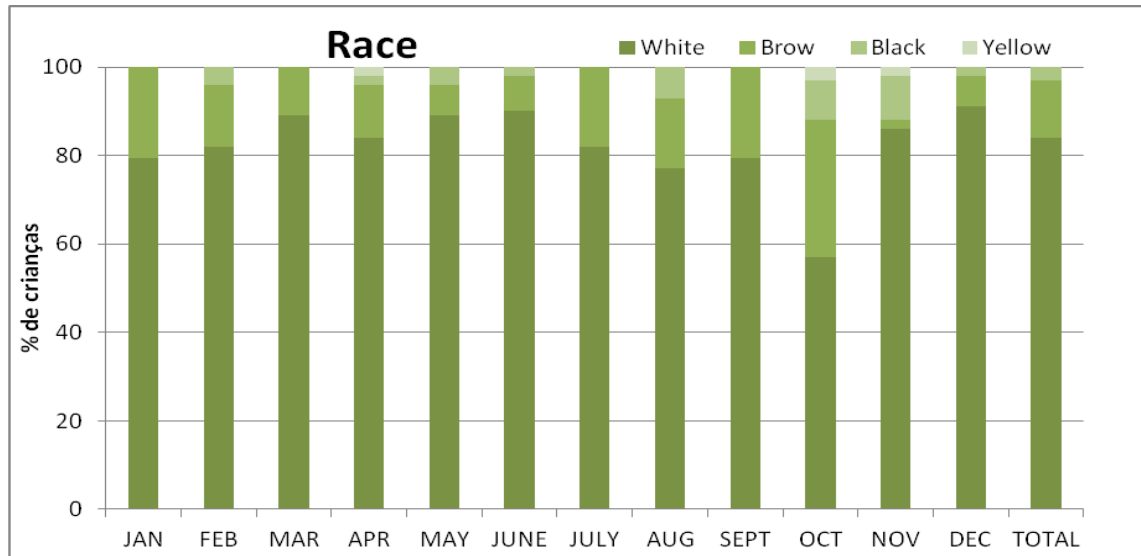


Figure 3. Relative monthly distribution by race

• Age

The age range between 1 to 5 years was prevalent and accounted for 52.2% (n = 256), followed by the age group of 5 to 10 years old with 23.3% (n = 114). The predominance of children aged 1 to 5

years was maintained in the monthly data from the studied year. The data shows that children in this age group are more vulnerable to diseases and require greater care.

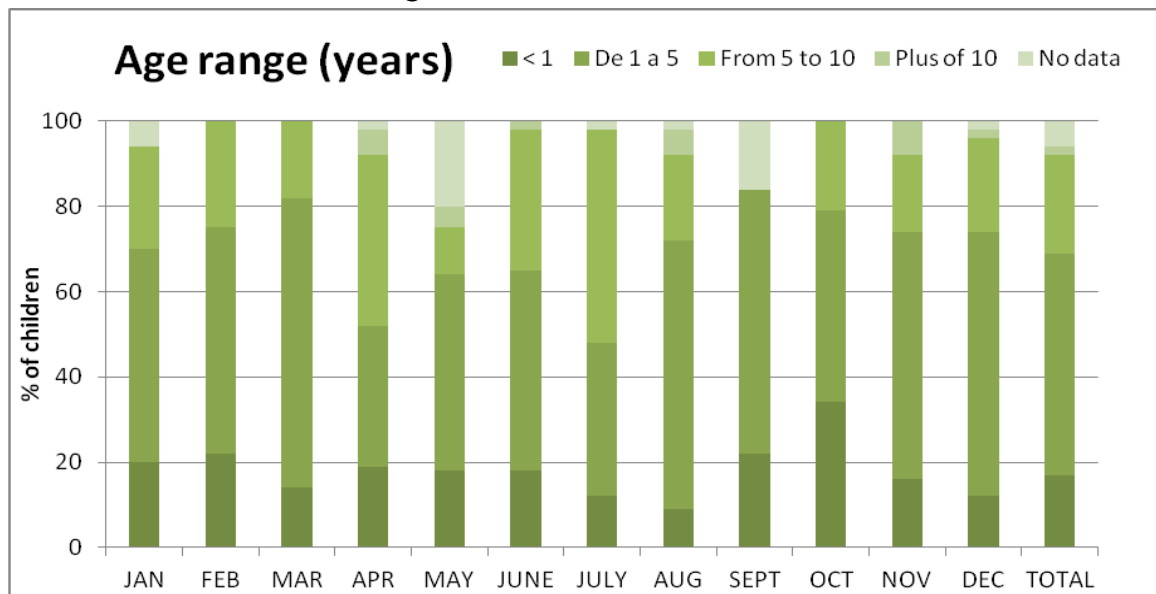


Figure 4. Relative monthly distribution by age

Profile of pediatric attendances at Lomba do Pinheiro immediate assistance unit from January to December of 2011

• Risk classification

The vast majority of attendances was defined as being of "green" risk in 85.9% (n = 411) of all attendances and represent least urgent cases for which the advocated time to be served by the Manchester protocol is currently up to 2 (two) hours.¹³ However, 10.4% (n = 50) of the records did not show the risk classification, which was characterized as "unclassified". Thus, the need of awareness from professionals involved in risk classification is observed to qualify assistance practices and avoid problems

for the institution and disagreements, expressed by the patient, during the waiting time, providing confidence and service agility to the user.

The percentage of pediatric patients attended in the service who are released for home treatment was high, (95.5%) of the sample. Returns to the service (48.6%) were observed as, if necessary and if conditions worsen, as (0.2%), and (33.8%) with no return when the doctor released without specific orientations. These data and the high rate of patients voluntarily seeking urgent and emergency service shows that many of these cases could be resolved in Basic Health Units (UBS) or Family Health Strategy (FHS).

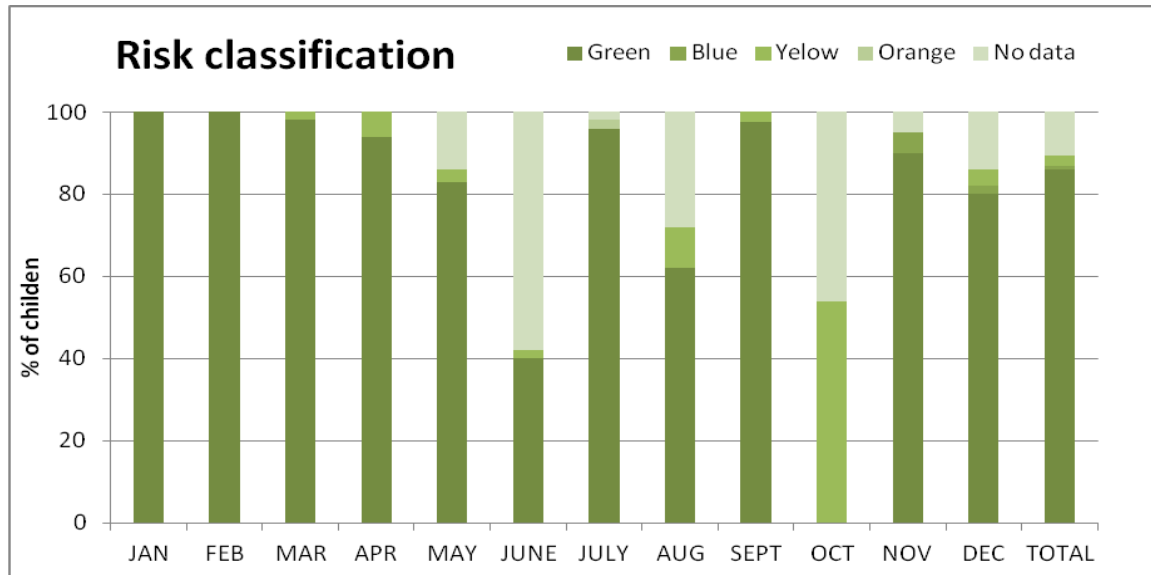


Figure 5. Relative monthly distribution by risk classification.

Incidence of health harms in children served at the Lomba do Pinheiro immediate assistance unit from January to December of 2011

• Main complaint

Fever was evidenced in 21% (n = 130) of all cases, prevailing with the highest incidence of main complaint, followed by complaints related to the respiratory tract, and complaints of coughing with 16.4% (n = 100) and vomiting with 9.4% (n = 57); these findings are in line with another study evaluating the incidence of nonspecific symptoms that highlighted "fever" as being the most prevalent complaint in 61% of the cases, followed by "abdominal pain" in 20.7%.¹³

In the monthly information, fever continued predominating in most months with proportions that ranged from 14.5% (n = 13) in the month of April to 36.6% (n = 16) in the month of March.

The month-to-month evaluation of coughing showed high proportions in most of the months, ranging from 17.1% (n = 7) in the months of March and May to up to 34.8% (n = 16) in September, period in which spring starts.

Cases of chickenpox were also observed in the spring period when seasonality favors infectious diseases.

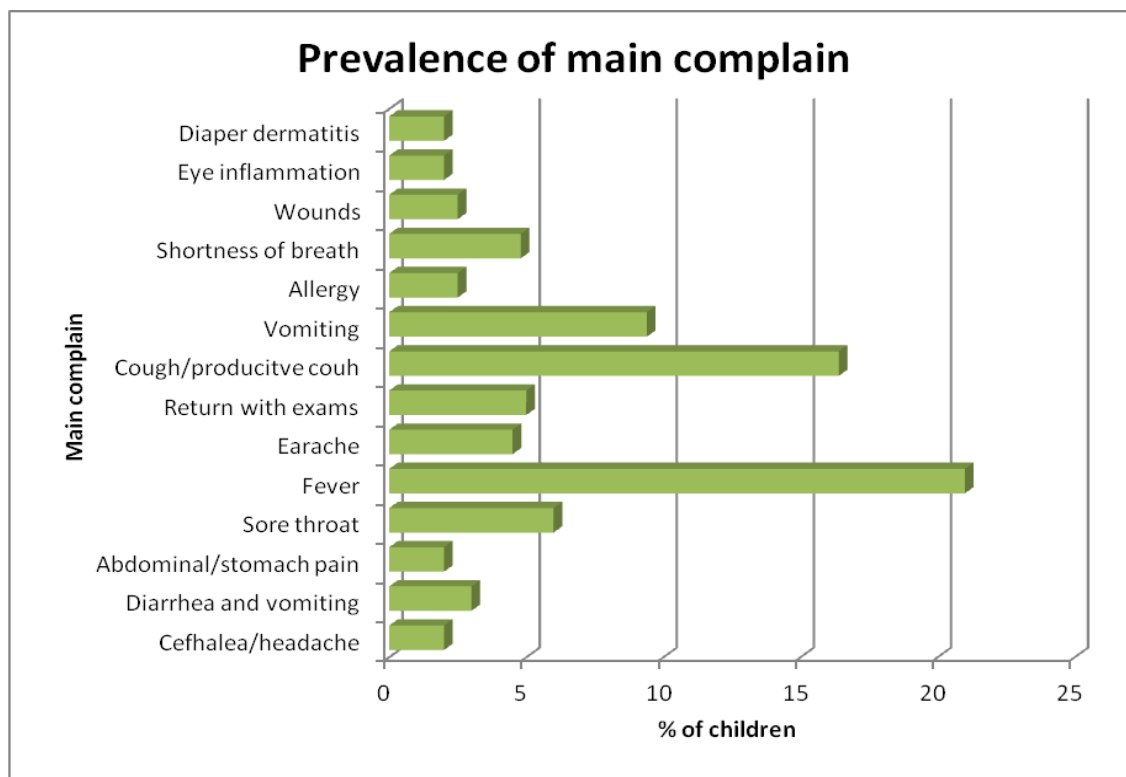


Figure 6. Relative monthly distribution by main complaint.

In the return with exams, the patient is treated for the reason for which he was first attended, i.e. he is returning for the evaluation of exams that were carried

out, and at this time, a new service record is generated without the recording of a specific main complaint.

DISCUSSION

This research is ended with the evidence of numerous findings that may contribute to the critical and reflective analysis about the services provided at the primary health care network in the population mainly regarding services provided in the immediate assistance services of municipal urgency and emergency. The results draw attention to the need for guidance and organization of care service flows and routes of health care provided to users of SUS.

This study showed that the vast majority of pediatric patients who sought the immediate assistance for urgent and emergency care service in the period of the study presented clinical situations that did not constitute true emergencies and could be resolved in the Primary Care. Thus, this finding brings up the necessity of orientation to be provided to the population in search of care according to the primary complaint when they seek their reference service for health care. On the other hand, these findings refer us, on an initial analysis, to the premise that the population is not aware of their customer reference for service, or discredits the reference services assigned to them.

In the second level of analysis, we think that the work for guidance and awareness on the part of family health teams, health advice committees, and all professionals involved with the work is extremely important together with the aid of written and image media to channel the necessary information to the population that uses health services. Therefore, knowledge about flows cannot be held only by professionals. There is an urgent need for clarification towards the population about these flows to avoid patients' roaming and to enforce the SUS principles.

Through their management spheres, it is understood that the Municipal Secretary of Health has a key role to promote discussions about the operation of services, their responsibilities, and promotion of exchange of experiences between the UPAs, UBS e ESF to work in an integrated manner serving the population, thus interrupting the process of seeking the Urgency and Emergency

Service as a first choice on the part of users without a link to the units in their service area.

We conclude that this job is not far from being achieved, on the contrary; we know that all means by which this proposal can be put into practice exist, being enough just to organize it for all professionals to articulate collaborations with each other and lay out a plan for the implementation of this initiative together with communities and the support of Municipal Health Secretary-SMS.

We hope with this research, to contribute as an example of research for the qualification of health services in the municipality, as well as, for the diagnosis of other realities and specificities about the services provided by the health care network for the population in Porto Alegre, and with that achieve the principles of the Health System that we are willing to fulfill.

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